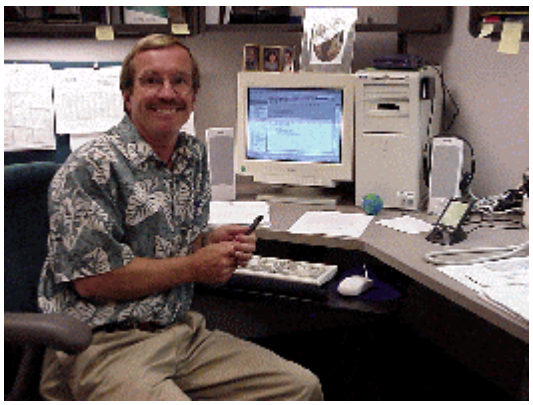

16 April 2001
USACE Environmental Development Workshop
PRESENTATION ABSTRACT

TITLE: Characterization of Groundwater Plumes using Dynamic Work Plans and Field Portable Analyses

SPEAKER: Roger Henderson, P.E., Innovative Technology Advocate, US Army Corps of Engineers, Sacramento District

PRESENTATION ABSTRACT: The paradigms and investigation approaches used in the past to characterize groundwater plumes has often taken many years of work but unfortunately resulted in poorly characterized plumes. Sites have been littered with unnecessary groundwater monitoring wells that were badly placed, redundant or of little use. Many years and much money were wasted in the unfocused pursuit of "characterizing the horizontal and lateral extent of contamination". This presentation will outline how contamination in shallow groundwater can be rapidly characterized through the use of a dynamic work plan, innovative groundwater sampling technologies and field portable analyses. A case study from one or more Corps of Engineer sites will be presented showing how the procedure worked, what lessons were learned and some roadblocks to the successful implementation of site investigations using dynamic work plans and field portable analyses.

SPEAKER BIO: Roger Henderson is an Environmental Engineer for the Corps of Engineers Sacramento District with over 12 years of experience in the environmental field. He has served as the District's Innovative Technology Advocate (ITA) since 1994. Roger holds a Bachelor of Science in Environmental Planning and Management from UC Davis and a Bachelor of Science in Civil Engineering from Oregon State University. He is a registered Civil Engineer in the State of California. Early on Roger worked at two US EPA environmental research laboratories (Research Triangle Park, North Carolina and Corvallis, Oregon) performing analytical analyses on air/water samples as well as managing biological uptake studies. The last 10 years with the US Army Corps has been spent in the District's Environmental Engineering Branch where he is now a technical section chief. His environmental experience encompasses EPA Superfund, RCRA, State Superfund and Formerly Utilized Defense Sites (FUDS). Over the last 5 years, Roger has heavily advocated the use of field portable analysis coupled with dynamic work plans to rapidly characterize contaminated sites. He has successfully achieved expedited characterization of over 15 small arms firing ranges via the use of field portable energy dispersive XRF units.

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